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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DANG, HUNG Q

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/089,903	<b>Applicant(s)</b> ABELARD ET AL.	
	<b>Examiner</b> Hung Q. Dang	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 December 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments filed 12/28/2009 have been fully considered but they are not persuasive.

On page 4, Applicant argues that, "Jaeger also does not teach providing N ( $N>1$ ) buffers for receiving respectively packets corresponding to one of N packet identifiers as alleged by the Office Action."

In response, Examiner respectfully submits that the Office Action relied on Jaeger to disclose "providing N ( $N>1$ ) buffers for receiving respectively packets corresponding to one of N data signals." As stated in the Office Action, the N buffers are virtually implemented in a single piece of RAM memory in a predetermined order (see at least column 5, lines 55-57). Although the memory locations used for each signal data are in the same piece of RAM memory, they constitute separate areas of buffers because a set of memory locations used for recording one signal data cannot be physically overlapped. In other words, the same memory locations cannot be used to store different data at the same time.

Clearly, the N signals disclosed in Jaeger can be considered as belonging to N signal channels. If Naimpally is incorporated into Jaeger, one of ordinary skill in the art would recognize that the resultant method can record a plurality of signal channels on the same MPEG transport stream, wherein each data packet of a given channel has a corresponding PID that identifies the program in that channel. Incorporating an identifier

for each data signal of Jaeger is well reasonable since it does not make sense if Jaeger does not have a means to identify the individual signals that are processed.

Regarding Applicant's arguments with respect to the teachings of Ogino on page 5, Examiner respectfully submits that Jaeger has already disclosed a single piece of RAM being implemented as N virtual buffers. Such a piece of RAM in turn is an aggregate buffer. Ogino is relied upon to disclose monitoring the total amount of data in such an aggregate buffer and triggering the recording into a recording medium if the total sum quantity of data in the buffer, which in combination with Jaeger, contains N virtual buffers, reaches a predetermined level, which is any level that is less than the remaining capacity of the recording medium. Because a recording medium can be characterized by its capacity, a characteristic of the recording medium at a certain point of time can be its remaining capacity. Examiner respectfully further submits that although the remaining capacity of a recording medium changes dynamically, it is well defined and predetermined via repeated calculations and updates as described in Ogino. In other words, claim 1 of the current invention does not require the characteristic to be fixed or static or to have any specific requirement (e.g. as recited in claim 2) to avoid such an interpretation.

As such, Applicant's arguments are not persuasive.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger (US Patent 6,345,028 – hereinafter Jaeger), Naimpally (US Patent 5,619,337 – hereinafter Naimpally), and Ogino (US Patent 5,852,467 – hereinafter Ogino).**

Regarding claim 1, Jaeger discloses a method for recording data in a digital video processing device connectable to a recording medium, comprising the steps of: receiving a plurality of data packets, each data packet being associated with one of N data signals (*column 5, lines 29-40; column 8, lines 41-46*); providing N ( $N > 1$ ) buffers for receiving respectively packets corresponding to one of N data signals (*column 3, lines 52-58; column 5, lines 29-40; column 6, lines 12-20 – wherein the memory area that stores the original tracks or signals is interpreted to comprise N buffers at least virtually; also see “Response to Arguments” above*); monitoring a total sum quantity of data stored in the buffer (*column 3, lines 52-58; column 5, lines 29-40; column 6, lines 12-20*); and triggering a writing process of the data contained in the plurality of buffers to the recording medium (*column 5, line 46 - column 6, line 20*).

Jaeger does not disclose each data packet being associated with one of N packet identifiers; and triggering a writing process of the data contained in the plurality of buffers to the recording medium when said total sum quantity of data reaches a predetermined level, said predetermined level being dependant on at least one characteristic of the recording medium.

Naimpally discloses receiving a stream of data packets, each data packet being associated with one of N packet identifiers (*column 3, lines 9-15; column 7, lines 26-39; column 8, lines 5-32; also see "Response to Arguments" above*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Naimpally into the method disclosed by Jaeger in order to receive and record one or more programs from an MPEG-2 transport stream thus making the method compatible with well established existing standards.

However, Jaeger and Naimpally do not disclose triggering a writing process of the data contained in the plurality of buffers to the recording medium when said total sum quantity of data reaches a predetermined level, said predetermined level being dependant on at least one characteristic of the recording medium.

Ogino discloses triggering a writing process of the data contained in the buffer area to the recording medium when the total sum quantity of data in the buffer area reaches a predetermined level, said predetermined level being dependent on at least one characteristic of the recording medium (*column 4, lines 45-48; column 5, lines 29-47; also see "Response to Arguments" above*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the teachings of Ogino into the method disclosed by Jaeger and Naimpally in order to keep the buffered data from being lost thus enhancing the reliability of the method.

Claim 5 is rejected for the same reason as discussed in claim 1 above.

**Claims 2-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger, Naimpally, and Ogino as applied to claims 1 and 5 above, and further in view of Yoneda et al. (EP 0 841 819 – hereinafter Yoneda).**

Regarding claim 2, see the teachings of Jaeger, Naimpally, and Ogino as discussed in claim 1 above. However, Jaeger, Naimpally, and Ogino do not disclose wherein the predetermined level corresponds to a size of a data recording unit on the recording medium, minus a quantity of space reserved to service information.

Yoneda discloses a predetermined level when the buffered data are recorded on a recording medium corresponds to the size of a data recording unit on the recording medium, minus the quantity of space reserved to service information (*column 47, lines 15-20, 33-54*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the buffering means disclosed by Yoneda into method disclosed by Jaeger, Naimpally, and Ogino because the buffering means taught Yoneda et al. uses an internal buffer of small capacity, so that the quantities of coded audio and video information temporarily stored in these buffers are reduced (*Yoneda: column 49, lines 17-23*).

Regarding claim 3, Jaeger also discloses wherein the writing step comprises the writing of the data in the different buffers to a same recording unit (*column 5, line 46 - column 6, line 20*).

Regarding claim 6, Yoneda also discloses a predetermined level when the buffered data are recorded on a recording medium corresponds to the size of a data recording unit on the recording medium (*column 47, lines 15-20, 33-54*).

**Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jaeger, Naimpally, Ogino, and Yoneda as applied to claims 1-3, and 5-6 above, and further in view of Deo et al. (US Patent 6,304,914 – hereinafter Deo).**

Regarding claim 4, see the teachings of Jaeger, Naimpally, Ogino, and Yoneda et al. as discussed in claim 3 above. However, Jaeger, Naimpally, Ogino, and Yoneda et al. do not teach the step of writing a header into said recording unit, said header indicating for the data from each buffer: the corresponding packet identifier, the size, and location of the data in the recording unit.

Deo teaches the concept of storing more than one data packets destined for the same address by appending them together to produce the compressed data packet which includes a master header (*column 1, lines 52-67*). The master header comprises the identifiers, the size and the location of individual data packets in the produced packets (*column 9, lines 39-48*).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the concept of combining small data packets into larger data packets with a header storing the identifiers, the size and the location of individual data packets in the produced packets taught by Deo into the digital video recording system taught by Jaeger, Naimpally, Ogino, and Yoneda to produce a compact packet



since, if used in wireless communication, would save a lot of bandwidth (*Deo: column 1, lines 29-32*).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Q Dang/  
Examiner, Art Unit 2621

/Thai Tran/  
Supervisory Patent Examiner, Art Unit 2621